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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,679	04/10/2001	W. Alexander Hagen	020860-000510US	1877

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EXAMINER

VOLPER, THOMAS E

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,679

Applicant(s) **A**

HAGEN, W. ALEXANDER

Examiner

Thomas Volper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/14/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7-13, 17, 19, 22-24, 30-34, 36-43, 47, 49, and 52-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Harrison (US 2002/0172191).

Regarding claims 1 and 30, Harrison discloses a system comprising a network access point for establishing a network connection between a terminal and a network access server, a first network interface between the network access server and the network access point, a second network interface between said network access server and a public network connection of a private network, the network access server being configured to establish and control a network connection between the terminal having a network connection with the network access point and public network through the public network connection of the private network without a network connection being established between the terminal and the private network (see Figure 2, paragraphs [0044], [0050], and [0060]).

Regarding claims 2 and 31, Harrison discloses that the access point has a wireless network interface for establishing a wireless network connection with the terminal (see Figure 2).

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Regarding claims 3, 4, 32, and 33, Harrison discloses the terminal has a wireless network interface for establishing a wireless network connection with the access point (paragraph [0038]).

Regarding claims 5 and 34, Harrison discloses that the terminal and network access point communicate via Bluetooth Protocol (paragraph [0037]).

Regarding claims 7 and 36, Harrison discloses a third network interface between the network access server and private network to enable network communication between the network access server and the private network (see Figure 2).

Regarding claims 8, 9, 37, and 38, Harrison discloses that the network access server may include a number of Bluetooth radios (28) connected to bus (24), which connects to the other interfaces of the access server (Figure 2, paragraph [0046]). Thus, the access server and access point may be co-resident in a computer, since Harrison also describes the access server as a computer (paragraph [0044]-[0045]).

Regarding claims 10, 11, 39, and 40, Harrison discloses that the network access server is a computer (paragraphs [0044]-[0045]), comprises an interface between the network access point and the private network, and is co-resident with the third interface (see Figure 2).

Regarding claims 12 and 41, Harrison discloses that the third network interface comprises a local area network adaptor (see Figure 2).

Regarding claims 13 and 42, Harrison discloses software to register terminals and software to limit access to the public network to registered terminals (paragraphs [0073]-[0078]).

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Regarding claims 17 and 47, Harrison discloses that the system of connecting the Bluetooth wireless terminals to the Internet enables features such as VPN (paragraph [0070]), which requires facilities for encrypting and decrypting data over public networks.

Regarding claims 19, 24, 49, and 54, Harrison disclose establishing connections for Bluetooth mobile devices over either the Internet or the PBX (paragraph [0050]).

Regarding claims 22 and 52, Harrison discloses that the Bluetooth communication devices may be WAP Internet phones (paragraph [0038]), which meets the limitation of providing mobile IP support.

Regarding claims 23 and 53, Harrison discloses that the access server stores data concerning which radio a user's communication device is attached to (paragraph [0078]), which meets the limitation of maintaining selected information concerning registered terminals.

Regarding claim 43, Harrison discloses software to register terminal operative to automatically begin a registration process with respect to a terminal when the terminal comes within communication range of the network access point (paragraphs [0097]-[0101]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 18, 20, 21, 25-29, 35, 48, 50, 51, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 2002/0172191) as applied to claims 1-5, 7-13, 17, 19,

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22-24, 30-34, 36-43, 47, 49, and 52-54 above, and further in view of Ala-Laurila et al. (US 2003/0157926).

Regarding claims 6 and 35, Harrison fails to expressly disclose the terminal and network access point communicate via IEEE802.11X wireless LAN protocol. Ala-Laurila discloses a wireless terminal in a public wireless IP access network (WISP), which may use WLAN protocol, is provided with a broadband connection to the Internet (paragraph [0069]). This WISP connects to a public access controller, which operates like the access server of Harrison. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a WLAN connection to connect the access point of Harrison to the access server. One of ordinary skill in the art would have been motivated to do this because the WLAN standard is commonly used in the art and many mobile terminals support this protocol.

Regarding claims 18 and 48, Harrison fails to expressly disclose dynamically providing network configuration data to terminals. Ala-Laurila discloses that a mobile terminal acquires an IP address through dynamic host configuration protocol (DHCP) and is authenticated before being able to access the network beyond the public access controller (PAC), which is similar to the access server of Harrison (paragraph [0088]). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide this dynamic configuration information to a mobile terminal in the invention of Harrison. One of ordinary skill in the art would have been motivated to do this in order to provide roaming capability to the mobile terminal.

Regarding claims 25 and 55, Harrison fails to expressly disclose an integration operator

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network to communicate with the network access server over the public network, wherein the integration operator network comprises facilities to manage public network access by the mobile terminal through the network access server. Ala-Laurila discloses a network connection between a public access controller (PAC), similar to the access server of Harrison, and a GPRS/GSM Authentication and Billing Gateway (GAGW) through the public Internet (Figure 2; paragraphs [0081]-[0082]). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include this connection from the access server of Harrison through the Internet to a GAGW. One of ordinary skill in the art would have been motivated to do this in order to keep track of billing information for a mobile terminal when it is outside of its home network.

Regarding claims 20, 21, 26-29, 50, 51, and 56-59, Ala-Laurila discloses maintaining selected information about the network access server, including provider identification (paragraph [0086]), registered terminals, including network usage accounting information (see Abstract), and selected network access and usage policies, including public network access policy information (paragraphs [0089]-[0109]).

5. Claims 14, 15, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 2002/0172191) as applied to claims 1-5, 7-13, 17, 19, 22-24, 30-34, 36-43, 47, 49, and 52-54 above, and further in view of Fujimoto et al. (US 2004/0054902).

Regarding claims 14 and 44, Harrison fails to expressly disclose that the network access server comprises facilities to prevent public access by the terminals to the private network. Fujimoto discloses a private network (100) connected to a public network (200) via an access

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server (330) that manages and controls the connections between the public and private network (see Figure 7; paragraph [0075]-[0087]). Public network (200) may be a wireless LAN or the like (paragraph [0037]). Fujimoto discloses that a user terminal on the public network (200) may make an authentication request to the access server (330) for access to the private network (100) (paragraph [0082]). Fujimoto also discloses an authentication procedure wherein the authentication request fails if the user terminal is not allowed to access the private network (paragraphs [0051]-[0058]). This meets the limitation of facilities to prevent access by the terminals to the private network. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the authentication procedure of Fujimoto at the access server of Harrison. One of ordinary skill in the art would have been motivated to do this in order to prevent access to sensitive or secret data on the private network from unauthorized terminals in the Bluetooth network.

Regarding claims 15 and 45, Harrison discloses a Bluetooth network and a LAN with interfaces to the access server as stated above. The Bluetooth network meets the limitation of a public subnetwork and the LAN meets the limitation of a private subnetwork.

6. Claims 16 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 2002/0172191) and Fujimoto et al. (US 2004/0054902) as applied to claims 14, 15, 44, and 45 above, and further in view of Curry et al. (US 6,233,234).

Regarding claims 16 and 46, Harrison fails to expressly disclose using an IP address filter. Curry discloses an access and security gateway that includes filtering functions. The gateway may filter on various levels, including at the IP address level (col. 5, line 55 – col. 6,

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line 14). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include an IP address filter in the access server of Harrison. One of ordinary skill in the art would have been motivated to do this in order to deny access to information on a private network from outside users.

7. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 2002/0172191) in view of Fujimoto et al. (US 2004/0054902).

Regarding claim 60, Harrison discloses a network access server having a network interface for making a network connection with an access point and a network interface for making a network connection with a public network connection (see Figure 2). Harrison fails to expressly disclose that the network access server is operational to control connection between the mobile terminals and the public network through the private network's public network connection without permitting the mobile terminals access to the private network. Fujimoto discloses a private network (100) connected to a public network (200) via an access server (330) that manages and controls the connections between the public and private network (see Figure 7; paragraph [0075]-[0087]). Public network (200) may be a wireless LAN or the like (paragraph [0037]). Fujimoto discloses that a user terminal on the public network (200) may make an authentication request to the access server (330) for access to the private network (100) (paragraph [0082]). Fujimoto also discloses an authentication procedure wherein the authentication request fails if the user terminal is not allowed to access the private network (paragraphs [0051]-[0058]). This meets the limitation of facilities to prevent access by the terminals to the private network. At the time the invention was made, it would have been

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obvious to a person of ordinary skill in the art to use the authentication procedure of Fujimoto at the access server of Harrison. One of ordinary skill in the art would have been motivated to do this in order to prevent access to sensitive or secret data on the private network from unauthorized terminals in the Bluetooth network.

8. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 2002/0172191) in view of Fujimoto et al. (US 2004/0054902) and Ala-Laurila et al. (US 2003/0157926).

Regarding claim 61, Harrison discloses a plurality of geographically distributed access servers (14 and 16, Figure 4) that may each have a connections to a plurality of access points for establishing network connections with one or more mobile terminals (paragraphs [0055]-[0060]). Harrison also discloses a plurality of first network interfaces, each first network interface for connection a network access server with a selected group of network access points (see Figure 2), and a plurality of second network interfaces, each second network interface for connecting a network access server with a public network connection of a private network (see Figure 2). Harrison fails to expressly disclose that the network access server is configured to establish and control a network connection between the mobile terminal through the public network connection of the private network without network connection being established between the terminal and the private network. Harrison also fails to expressly disclose an integration operator network located remotely from at least some of the plurality of network access servers and adapted to communicate with each of the network access servers over the public network, wherein the integration operator network comprises facilities to form the network access servers

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into a distributed public network access network. Fujimoto discloses a private network (100) connected to a public network (200) via an access server (330) that manages and controls the connections between the public and private network (see Figure 7; paragraph [0075]-[0087]). Public network (200) may be a wireless LAN or the like (paragraph [0037]). Fujimoto discloses that a user terminal on the public network (200) may make an authentication request to the access server (330) for access to the private network (100) (paragraph [0082]). Fujimoto also discloses an authentication procedure wherein the authentication request fails if the user terminal is not allowed to access the private network (paragraphs [0051]-[0058]). This meets the limitation of facilities to prevent access by the terminals to the private network. Ala-Laurila discloses a network connection between a public access controller (PAC), similar to the access server of Harrison, and a GPRS/GSM Authentication and Billing Gateway (GAGW) through the public Internet (Figure 2; paragraphs [0081]-[0082]), which meets the limitation of an integration operation network. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the authentication procedure of Fujimoto at the access server of Harrison. It also would have been obvious to include this connection from the access server of Harrison through the Internet to a GAGW. One of ordinary skill in the art would have been motivated to combine Harrison and Fujimoto in order to prevent access to sensitive or secret data on the private network from unauthorized terminals in the Bluetooth network. One of ordinary skill in the art would have been motivated to combine Harrison and Ala-Laurila in order to keep track of billing information for a mobile terminal when it is outside of its home network.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Forslow (US 2002/0069278) Network-Based Mmobile Workgroup System

- Malik (US 2003/0161300) System and Method for Bandwidth on Demand for Internet Service Providers

10. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is (571) 272-3151. The examiner can normally be reached between 8:30am and 5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at (571) 272-3155. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Thomas E. Volper

TEV

December 9, 2004



HUY D. VU
SUPERVISORY PATENT EXAMINER
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